

What is claimed:

1. A monolithically formed one-piece reflective pavement marker comprising:
a substantially hollowed structural body, said body having a top, two multi angle sides with grip regions, a planar base surface with textured grooves and two planar inclined faces with at least one is a reflective face, said reflective face integrally includes a planar outside surface with slightly raised periphery bumper and at least one row of designated inside cell like areas open within hollow cavity air gaps immediately beneath said reflective face, said monolithically formed marker is made of a high impact resistant polymeric material either in one color or multi-colored body;
elements forming means for integrally fabricating multiple cube corner reflective elements on said designated cell like areas within the inside surface of said reflective face, thereby monolithically providing said structural body the cube corner reflective elements needed to facilitate retro reflectivity of light from oncoming vehicles, said reflective elements are defined within said hollow cavity air gaps;
and wall means for integrally providing structural support to said marker, said wall means disposed rear ward starting at the periphery of the designated cell like areas within inside of said reflective face, said wall means defining hollow cavity air gaps beneath said protruding cube corner reflective elements and providing the ejection space needed during said marker fabrication process, said hollow cavity air gaps each having a centerline that forms an angle of about 90 degrees with respect to the corresponding outside planar reflective face, said hollow cavity air gaps having open ends at the planar base surface, said wall means having outwardly tapered surfaces starting at a point immediately adjacent to the periphery of the inside surfaces of the cell like areas,

2. The one piece pavement marker as defined in claim 1, wherein the open ends of hollow cavity air gaps at the planar base surface can be capped and sealed in a continuous process, said sealing process feed a corresponding size and shape polymeric thin sheet to be sonically welded and trimmed simultaneously, said capping sheet having textured and grooved surface.
3. The one piece pavement marker as defined in claim 1, wherein the outside surface of the reflective face can be coated with abrasion resistant resinous coating composition, said resin applied near room temperature, said resin coating composition is selected from various suitable and readily formulated products with high adhesion strength and UV resistant.
4. A monolithically formed one-piece reflective pavement marker comprising:
a substantially hollowed structural body having a planar top surface, two inclined planar faces with multiple reflective cells, said reflective cells each integrally includes an inside cell like areas with multiple cube corner reflective elements open within hollow cavity air gaps immediately beneath said reflective cells, two arcuate sides each having an arcuate grip region and a planar base surface that includes an extended portion beyond the periphery of said pavement marker body, said base surface includes the open ends of said multiple hollow cavity air gaps, said hollow cavity air gaps each having a centerline that forms an angle of about 90 degrees with respect to the corresponding planar base surface.
5. Monolithically formed one-piece reflective temporary roadway marker comprising:
two sides connected by thin ties, said each side having an upper flexible segment having an interior planar surface with raised, beaded periphery edges, and a lower rigid body with a top planar portion, one inclined reflective face, two arcuate sides, a planar base surface and a backside forming perpendicular angle with respect to said base surface;
element forming means for integrally fabricating multiple cube corner reflective elements within the interior surfaces of the upper flexible segments defined by said periphery edges and in said designated cell like areas within said reflective faces of said lower rigid body segments; and
wall means for integrally providing structural support within each lower rigid body, said wall means disposed rearward starting at the periphery of said designated cell like areas within said inside surfaces of the reflective faces, thereby defining multiple hollow cavity air gaps beneath said cube corner reflective elements and providing the ejection space needed during said element forming means, said hollow cavity air gaps each having a centerline that form an angle of about 80 to 120 degrees with respect to the corresponding

- outside planar reflective face, said hollow cavity air gaps having one row open ends at the planar base surface and the upper row open ends at the vertical backside of said lower body.
6. The monolithically formed one-piece reflective temporary roadway marker as defined in claim 5, wherein said two sides sonically welded on the upper beaded periphery edges and the lower vertical backside, thereby forming two way reflective roadway marker, said roadway marker can have the upper segment formed with tearable ties, thereby retaining said lower body segment adherent to the pavement as permanent reflective marker.
 7. The monolithically formed one-piece reflective temporary roadway marker as defined in claim 5, wherein said planar base surface of said rigid lower body is having one row of said open ends of hollow cavity air gaps, said open ends can be sealed with a compatible polymeric capping sheet, thereby providing means to pre-apply pressure sensitive adhesives on said planar base surface.
 8. Monolithically formed one-piece reflective roadway delineator comprising:
 - two sides integrally connected with wedge shaped ties, each of said sides is having a planar base portion with grooves and a reflective face portion that form perpendicular angle with respect to said base portion;
 - element forming means for monolithically fabricating multiple cube corner reflective elements within the inside surfaces of said vertically positioned reflective face portions, said element forming means can fabricate cube corner reflective elements on the inside surfaces of said vertically positioned reflective face portions defined by periphery walls; and
 - wall means which for integrally partition said inside and outside vertical, reflective face portions of said roadway delineator, said wall means provide impact resistance and structural support to said reflective faces of said delineator.
 9. The monolithically formed one piece roadway delineator as defined in claim 8, wherein said designated cell like areas are separated from each other by said wall means, said wall means form slightly raised ridges on the outside of said vertically positioned reflective faces, said raised ridges defining the outside, planar, reflective cell like areas, said planar cell like areas correspond to the inside designated cell like areas defining the cube corner reflective elements.
 10. The monolithically formed one piece roadway delineator as defined in claim 8, wherein said two sides of said roadway delineator are sonically welded whereby sealing the inner surfaces of the two vertically positioned reflective face portions, thereby providing air gaps between each of the two inside designated cell like areas with the cube corner reflective elements.

11. The monolithically formed one piece roadway delineator as defined in claim 8, wherein the vertically positioned reflective face portion can have both surfaces formed without load carrying partition walls on said planar surfaces, said inside surface of reflective faces integrally formed with multiple of cube corner reflective elements, said each inside surface bounded by raised, beaded periphery walls, said two vertically positioned sides are sonically welded, thereby sonically fusing said beaded periphery walls, whereby retaining air gap between the inside of said two vertically positioned reflective faces.
12. The monolithically formed one piece roadway delineator as defined in claims 8, wherein said raised periphery walls can be provided with an interlocking means for allowing the two sides of roadway delineator to affix to each other, thereby retaining air gaps between the two inside surfaces of said vertically positioned reflective faces, whereby retro reflectivity can be attained on both sides of roadway delineator.
13. The present invention includes within its scope a method for making the monolithically formed reflective pavement marker comprising the steps of:
 - providing a tooling means which allow the injection molding of said reflective pavement marker or delineator, monolithically including the cube corner reflective elements in one step, said tooling can be made to mold said marker in one or two compatible material in an injection molding process either in one or two colors.
 - providing hard resin coating composition, for adding abrasion resistant topcoat on the marker reflective faces, said hard resin coat can be selected from various available, abrasion resistant coating resins, said hard resin composition can be dip coated, sprayed or brushed on said faces,
 - providing an opaque color additive to be added to a selected hard abrasion resistant resin composition for coating the remaining portions of the marker outside surfaces, this hard, colored topcoat will provide the same abrasive resistant, durable surface. One color or two opaque color segments can be applied to the body of the marker, said resin coating composition is selected from a variety of available abrasion resistant coating resin.

It is understood that various changes or modifications can be made within the scope of the appended claims to the above-preferred method of forming one-piece reflective marker without departing from the scope and the spirit of the invention. The principle processes of this invention are not limited to the particular embodiments described herein. Various embodiments can employ the processes of this invention. This invention is not limited to the exact method illustrated and described; alternative methods can be used to form the intended monolithically formed reflective pavement marker of this invention.